

National Institute of Standards and Technology Manufacturing Extension Partnership Advisory Board Minutes of the September 2011 Meeting

Background

The National Institute of Standards and Technology (NIST), Manufacturing Extension Partnership (MEP), Advisory Board met in an open session from 9:00 a.m. to 5:00 p.m. on September 21, 2011, at the Information Technology and Innovation Foundation (ITIF) in Washington, DC. Approximately 30 attendees, composed of Board members, MEP participants, other participants, and observers, attended the meeting.

Attendees

Board Members

Mark Rice, Chairperson, MEP Advisory Board, and President, Maritime Applied Physics
Jim Bean, Vice Chairperson, MEP Advisory Board, and President/Chief Executive Officer,
Preco Electronics, Inc.
Dennis Dotson, Chairman, Dotson Iron Castings
Eileen Guarino, President/Chief Operating Officer, Greno Industries
Edward "Ned" Hill, Dean, Levin College of Urban Affairs, Cleveland State University
Fred Keller, Chairman/Chief Executive Officer, Cascade Engineering
Kenneth Priest, President/Chief Executive Officer, Kenway Corporation
Vickie Wessel, Founder/President, Spirit Electronics, Inc.
Edward Wolbert, President, Transco Products, Inc.

MEP Participants

Roger Kilmer, Director, NIST MEP
Aimee Dobrzeniecki, Deputy Director, NIST MEP
Karen Lellock, Senior Policy Advisor, NIST MEP

Other Participants

Jamie Brown, Professional Staff, Committee on Science, Space, and Technology, U.S. House of
Representatives
Hilary Cain, Staff Director, Committee on Science, Space, and Technology, U.S. House of
Representatives
Stephen Ezell, Senior Analyst, Information Technology and Innovation Foundation
Marcy Gallo, Professional Staff, Committee on Science, Space, and Technology, U.S. House of
Representatives
Patricia Giavara, Assistant Director, Vermont Manufacturing Extension Center
Joe Perrotto, President/Chief Executive Officer, Country Home Products
Bob Zider, Director/Chief Executive Officer, Vermont Manufacturing Extension Center

Observers

Megean Blum, NIST MEP

Kelly Dizon, NIST MEP

Ronald Gan, Administrative and Financial Management Officer, NIST MEP

Diane Henderson, Business Liaison Specialist, NIST MEP

Maryam Khan, Congressional Staffer, Committee on Commerce, Science, and Transportation,
U.S. Senate

William Kinser, Director, Center Operations, NIST MEP

Glen Mandryo, Executive Vice President, Strategic Marketing Innovations

Harry Mayfield, Lewis-Burke Associates

Mike Simpson, Director, Systems Operations, NIST MEP

Phillip Singerman, Associate Director for Innovation and Industry Services, NIST

Mary Sprayregen, Senior Legislative Assistant, Office of U.S. Congressman Peter Welch (D-VT), U.S. House of Representatives

Mark Troppe, Manager, Strategic Partnerships and State Relations, NIST MEP

Gary Yakimov, Manager, Policy Initiatives, NIST MEP

Paul Zielinski, Director, Technology Partnerships Office, NIST

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Welcome, Introductions, and Opening Remarks

Speakers: - ***Mark Rice, Chairperson, MEP Advisory Board, and President, Maritime Applied Physics***

- ***Roger Kilmer, Director, NIST MEP***

Speaker: ***Mark Rice, Chairperson, MEP Advisory Board, and President, Maritime Applied Physics***

Mr. Rice welcomed Board members, participants, and observers to the September 2011 Advisory Board meeting. Mr. Rice presented the agenda of the meeting, asked Board members to introduce themselves, and then summarized the status of manufacturing in the United States (U.S.).

Based on U.S. Census Bureau data, manufacturing represents approximately 10 percent of the total U.S. employment. Within the manufacturing sector, manufacturers of less than 500 employees employ 90 percent of the manufacturing jobs. Data from the Department of Commerce's Bureau of Economic Analysis indicates a U.S. trade-balance deficit of \$7 trillion between 1992 and 2010, where a positive balance of trade in services is dwarfed by the negative balance of trade in goods. In 2009, 60 percent of U.S. exports were by manufacturers. However, 67 percent of all exports and 82 percent of manufacturing exports were by companies with more than 500 employees.

It was noted that many large companies, such as General Motors, do not understand the challenges faced by small and medium-sized enterprises (SMEs) because SMEs are so far down

in the supply chain. It is hoped that this perception will be changed and that the Advisory Board will play a strategic role as it continues to provide NIST MEP guidance in sustaining and growing America's manufacturing base.

Speaker: Roger Kilmer, Director, NIST MEP

Mr. Kilmer provided an overview of the FY12 NIST and MEP budgets. As of September 21, NIST and MEP did not have a budget for FY12; Congress is expected to pass a Continuing Resolution (CR) until a FY12 budget is approved.

The CR is expected to cover the October 1 through November 18 timeframe. House markups reflect a proposed MEP budget of \$128 million while the Senate markup proposes a budget of \$120 million. Both the House and Senate have eliminated funding for the Technology Innovation Programs and the Baldrige Performance Excellence Program. NIST and MEP are developing contingency plans to consider various funding levels.

Benchmarking Countries' SME Manufacturing and Technology Support Programs

Speaker: Stephen Ezell, Senior Analyst, Information Technology and Innovation Foundation

ITIF is a non-partisan research and educational institute whose mission is to formulate and promote public policies to advance technological innovation and productivity. ITIF is focused on innovation, productivity, and digital-economy issues. ITIF released two reports, "The Case for a National Manufacturing Strategy" and "International Benchmarking of Countries' Policies and Programs Supporting SME Manufacturing" in 2011. (Both reports are available at: <http://www.itif.org/reports>)

Many countries, such as Germany, Australia, Canada, Japan, and England, have manufacturing extension systems (MES) that support manufacturing. These programs are similar in purpose to the National MEP System.

Services Provided by Foreign Manufacturing Extension Systems

Foreign MES organizations provide:

- Technology-acceleration programs and practices,
- Next Generation Manufacturing technical assistance,
- Technology-acceleration funding mechanisms, and
- Central source for SME manufacturing support services.

Why Foreign Countries Support SME Manufacturers

- To help SMEs become more competitive,
- To reduce the productivity gap that exists between large and SME manufacturers,
- To help SMEs be more productive,
- To overcome knowledge/information gaps, and
- To provide information and advisory services to SMEs.

Summary of Findings

- SME-manufacturing support provides a positive impact on productivity, sales, and employment.
- Foreign countries are investing more than the U.S.
- U.S. investment is less now than in the past.
- Many MES programs are expanding their focus from the manufacturing process and quality to include innovation and research-and-development (R&D) efforts.
- Successful countries are moving up the technology ladder, from low-technology manufacturing to high-technology manufacturing.

Implications for Policymakers

- Manufacturing and SME manufacturing are vital to an economy.
- MES can play an indispensable role for SMEs.
- Economic impact of manufacturing and SME manufacturing is substantial.
- Leading manufacturing countries are providing substantial resources as a core part of their national strategy.

Discussion

Q: You focused on several "benchmark" countries. What are their strategies? How do their strategies align with MEP's strategy?

A: Each "benchmarked" country has developed a national manufacturing plan. Germany has a very sophisticated plan, which focuses heavily on applied research that translates technologies into commercialized products. Japan has a similar focus on applied research. The United Kingdom has a plan for growth. Most strategic plans include manufacturing innovation.

Q: Can you discuss centrally managed countries' (i.e., Korea's) MES programs and the impact on SMEs?

A: Japan is a better example. The centers in Japan are uniquely and effectively partnering alongside SME manufacturers to help them research and develop new technologies and products. Germany does not have a MEP-type organization – it is structured differently.

Q: Is Japan's policy uniform across the country?

A: Japan's policies are interesting and unique. Their program has been in place for a century. Their program is based upon past U.S. agricultural programs. It is very localized. It is coordinated with R&D challenges. Japanese manufacturers send their scientists to Japanese MES centers. Culturally, local communities cannot grow by taking assets from another community. They are not allowed to shift production from one region to another.

Q: Can you discuss the impact of funding levels on MESes?

A: First, a well-funded program generates positive financial impacts. Second, higher levels of funding correlate to better financial impacts for firms.

Q: Can you describe your forthcoming book?

A: "The Race for Global Innovation Advantage" describes why the U.S. is falling behind in manufacturing. In 2000, the U.S. was the leader in innovation. In one decade, the U.S. fell to fourth place and is currently falling fast. Foreign countries are investing much more in their infrastructure than what the U.S. is investing.

Q: Do you see the domestic policy shifting?

A: The U.S. needs to focus on the four "Ts:" taxes, trade, technology, and talent.

Q: Japan and Germany are successful industrial countries. Do you see similarities on how they grew or how they thought of growing?

A: That is a very broad question. R&D, innovation, and manufacturing are closely linked. An industrial country cannot have one without the other.

Q: Centrally managed economies, such as Korea, may have a competitive advantage. Do you have any conclusion about the future?

A: When Ford competes against Nissan, Ford competes against both Nissan and the Japanese government. China and Japan will be very formidable competitors for the next 20 years.

- As long as China needs foreign goods, China is willing to trade with other countries. In the long term, however, China has a strategy focused on limiting imports and continuing to develop their manufacturing industry to support national needs.

Q: Looking at the National MEP System, what would you change?

A: MEP needs to continue to focus on innovation. MEP needs to connect innovation with manufacturing through tools such as the National Innovation Marketplace (NIM).

Q: Financial institutions shy away from manufacturing investments because they do not understand them.

A: The U.S. should think about better mechanisms to add value to our firms. These programs, like the Small Business Innovation Research program, enhance a firm's ability to attract capital.

Q: Have you addressed how the U.S. can keep product development in the U.S. after it develops an innovative idea?

A: No. ITIF has not looked at that question. However, some R&D organizations stipulate that an ensuing product must be developed in the U.S. The U.S. needs a mechanism to ensure that R&D stays in the U.S.

Additional Comments

- While there is a need for a national manufacturing strategy, there will always be a place for government assistance in the form of an extension service. The purpose of the service is to provide leadership in leading-edge practices around operational excellence and innovation. These two are playing out and it is the purpose of MEP to create the right environment where the marketplace picks up the practices and takes it to scale so that the entire 250,000 manufacturing organizations throughout the U.S. are practicing these techniques in a robust manner. This is as compelling, if not more so, than simply the return on investment for the services delivered by MEP.
- Most SMEs cannot borrow because they do not have an adequate equity base. After a company develops an innovative idea, investment for the idea becomes critical.
- Foreign countries are working with manufacturers to define customers' needs in addition to providing support for their manufacturing operations.

- The National Science Foundation's (NSF's) focus is different than that of the German Fraunhofer model. Consideration should be given to training the next generation of manufacturing leaders. How should the university investment structure change to support this? Is there a new U.S. mechanism or funding priority that spurs the needed change?
- Several National elements that need attention include: education system, export-support programs to find foreign markets; standards; smart proactive public policies like the Germany "Kritarbite" program; partnering with SMEs; and providing supplemental funding for in-house training.
- Technology versus industry-related programs in Germany is separately administered. Funding is more shared as the investments move to the industrial side.
- How do strategies vary by country? Do other countries have sector-specific objectives, e.g., nano, sensors, robotics, etc.? The United Kingdom appears to plan for growth. Korea focuses on an innovation strategy. U.S. policymakers need to review what other countries are doing.

MEP's Next Generation Strategy

Speaker: Aimee Dobrzeniecki, Deputy Director, NIST MEP

MEP's Next Generation Strategy

MEP's overarching goal of MEP's NGS is to increase manufacturers' capacity for innovation, resulting in growth in profitable sales.

There are five key areas in MEP's NGS. They are:

- Continuous improvement,
- Technology acceleration,
- Supply chain development,
- Sustainability, and
- Workforce development.

Ms. Dobrzeniecki provided examples of services, tools, and partnerships under each of the NGS areas.

Continuous Improvement

Under NGS, MEP's continuous-improvement emphasis is its Lean Product Development (LPD), which focuses on concept development and commercial delivery of new products. MEP services include visioning events, quick-start training, client engagements, and mentoring.

LPD has benefited companies by:

- Reducing launch schedules,
- Improving gross margins,
- Accelerating the development of high-value new products,
- Maximizing the productivity of scarce human and capital resources, and
- Developing a culture of discipline, focusing on value and intolerance to waste.

Technology Acceleration

The National MEP System is working with the Department of Defense (DOD) and the National Aeronautics and Space Administration (NASA) on Model-Based Enterprise (MBE), which provides a three-dimensional framework that integrates the tools and processes covering the whole lifecycle of a product – from concept to disposal. It is a computer-based, configuration-controlled environment in which design, evaluation, and manufacturing information created in one system can be seamlessly shared with other product contributors.

MEP Centers are working with firms to assess current capability, develop new capabilities, and increase awareness of military and NASA suppliers to operate in an MBE environment.

MEP support of MBE has included:

- MEP has developed and is maintaining an MBE website,
- MEP is raising supplier literacy through MBE summits, and
- MEP is working with DOD and NASA to define next steps for assisting suppliers in implementation of MBE approaches and tools.

Discussion

Q: Is NIST MEP using MBE at the national level or with Centers?

A: MEP Centers are working with NASA and DOD to help them find American companies that can provide the products that they need. MEP Centers are working with SMEs to help them understand DOD requirements.

Q: Can you comment on the scale of the project?

A: Currently, there are 200 companies involved. MEP has received a good response from companies that have attended MEP-sponsored summits.

Q: Are there more summits planned in the future?

A: Yes, we are planning future events and will share the dates with the Board.

Supply Chain Development

MEP's new strategy is to focus on individual suppliers and how they can expand by moving into established original-equipment-manufacturer (OEM) supply chains.

MEP is working with MEP Centers to develop tools for supply chain development; to engage in long-term working relationships with OEMs and first-tier and lower-tier suppliers to improve supply chain competitiveness; and to enable U.S. manufacturers to grow and diversify their customers domestically and internationally.

Discussion

Q: After the tsunami in Japan, large firms are requiring SMEs to develop continuity plans to ensure their suppliers are available to fill orders. This large gap needs to be filled and the National MEP System can help.

A: MEP is discussing continuity planning with the Department of Homeland Security.

Generally, most businesses do not have continuity plans. MEP can help by developing tools and systems. Many Federal solicitations are now requiring companies to have continuity plans in their proposals.

Sustainability

The National MEP System is supporting manufacturing leadership in sustainability in several areas, including:

- Green Suppliers Network (GSN): www.greensuppliers.gov/ and
- Economy, Energy, and Environment (E3): www.e3.gov/.

The National MEP System has had very good success with E3. E3 brings the entire community together, including local governments and industry to solve issues and problems at all levels.

Discussion

Q: How is MEP bringing manufacturers into this?

A: Manufacturers are interested in presenting their case, explaining their business to the community so that all parties are aware of the manufacturing process and the steps the companies are willing to take to help their business and the overall community.

Q: How is this funded and how does MEP benefit.

A: E3 audits are funded by local communities. MEP Centers assist with the E3 audits and build relationships with manufacturers.

Workforce Development

MEP is working with the Society of Manufacturing Engineers (SME) and the National Association of Manufacturers (NAM) on workforce development. MEP's approach is to develop a strategic management tool for SMEs by using a life cycle of talent within a firm. This life cycle includes planning and strategic alignment, recruitment, development and management, and retention and succession planning. MEP has titled this manufacturing talent system SMARTalent (strategic management, acquisition, and retention of talent).

Discussion/Comments

- Leadership education is needed in college engineering and business curricula. This is a core competency issue for SMEs.
- Suggested resource for reading on workforce development: www.bc.edu/research/agingandwork/.

MEP Innovation Engineering Management System (IEMS)

MEP is focused on being a change agent for U.S. manufacturing. The goal of MEP's IEMS is to provide business leaders with a reliable process for faster commercialization in new markets. MEP's IEMS includes a 3-day training session, Innovation Engineering Leadership Institute (IELI), where attendees are taught the concepts of innovation and how to implement an innovation system within their organizations. The training includes innovation tools and hands-on group training techniques.

NIST MEP is also investing in the professional development of MEP Center staff and partners where staff will be certified (IELI's Innovation Black Belt training) to deliver MEP innovation services to the manufacturing community. NIST MEP feels that the National MEP System should be using the same systems and tools that MEP is promoting to manufacturers.

MEP's goals are:

- Bring together all the resources to help a company understand innovation,
- Take the fear factor out of new opportunities, and
- Move the system and companies from the "House of Lean" to the "House of Innovation."

To date, MEP has conducted 19 IELI events and has trained 2,397 attendees from MEP Centers, manufacturers, and partners.

Ms. Dobrzeniecki reviewed the afternoon agenda that includes participants from a MEP center and a client, sharing their perspectives on their innovation activities. Specifically, the afternoon included three presentations from the Vermont Manufacturing Extension Center (VMEC):

- Center Experience: "VMEC's Journey with Innovation and Technology Acceleration as Key Center Strategies,"
- Field Staff Perspective: "VMEC's Journey with Innovation and Technology Acceleration from the Field Staff Perspective," and
- VMEC Client Experience: "From Desire to Strategy to Action, One Company's Journey."

Discussion

Q: Congratulations on the progress that has been made. These presentations build upon and clarify the presentations from the Advisory Board's last meeting in Orlando.

A: Thank you. We are continually striving to share all of the interrelated MEP activities with stakeholders in a meaningful way that demonstrates the system approach we are taking working with manufacturers.

Q: MEP has been working with several other Federal agencies. Do you have a vision of the National manufacturing strategy?

A: Yes. NIST MEP is moving forward with services and partnerships to support U.S. manufacturing. As stakeholders work on a National manufacturing strategy, we are positioned to provide input and feedback on the unique needs of the smaller manufacturers.

Q: How will MEP Centers be evaluated? Will they be evaluated on strategy or tools?

A: MEP's plan is to develop tools and to offer the tools to the Centers. The Centers can use MEP's tools if they want or they can develop their own tools. The new tools are creating a new language of innovation. Centers will continue to be evaluated on the impacts they deliver to the manufacturer.

Q: Does MEP have a feedback mechanism from the Centers?

A: MEP works closely with its Centers and we receive feedback in both informal channels (i.e., through our regional account managers) and through regular system meetings where information is shared and discussed.

VMEC's Journey with Innovation and Technology Acceleration as Key Center Strategies

Speaker: Bob Zider, Director/Chief Executive Officer, Vermont Manufacturing Extension Center

Introduction

VMEC is a small rural Center with 13 staff members and a budget of \$2.1 million. Mr. Zider, the Director of VMEC, comes from a military background with 19 years of manufacturing experience and 15 years of experience with VMEC.

Why VMEC is Focused on Innovation and Technology Acceleration

- Innovation is critical to the success of the Center and innovation is critical for the success of manufacturers and businesses in Vermont.
- Innovation increases profits.
- Today's business life cycle moves very fast. Lean was once new and different. Today, Lean is ubiquitous.
- With Lean, MEP entered at the operational level of an organization. Innovation is a natural follow-on to Lean.
- MEP needs to engage at the strategic level of an organization to understand the overall direction of the company and provide a suite of solutions and services.
- Innovation Engineering (IE) has continuous improvement at its foundation.

A Quick Overview: Our 5-year Journey from 1000 Feet

- VMEC challenged the innovation theories in Vermont and the theories were well received.
- IE is now a part of VMEC's overall strategy.
- Vermont is one of the first States to implement as state-based National Innovation Marketplace (NIM) focused on connecting technology providers and businesses with opportunities that may result in the development of new products and improved processes.
- VMEC trained its staff to be IE Black Belts and actively involved in ongoing education of staff in the area of innovation. VMEC is very supportive of NIST MEP activities in this area.
- VMEC's Innovation Institute events for companies and partners are sold out.

What Is VMEC Trying to Accomplish?

- VMEC believes that innovation is the correct strategy, and VMEC wants to be the trusted advisors for innovation.
- VMEC wants 50 percent of its future revenue to come from innovation and growth.
- VMEC is trying to convert "reactive" CEOs to "proactive" CEOs through VMEC's outreach efforts.
- VMEC is working to increase Center staff's understanding of innovation and growth. The staff understands Lean and is currently moving towards innovation and growth services.
- VMEC wants to improve staff capabilities and competencies ability in order to reach out to the strategic level of an organization
- VMEC is trying to educate and develop partnerships in innovation, and is working to educate State legislatures on the importance of innovation.

Key Challenges and Learning to Date

- Selling IE can be slow, painful, and expensive for the Center when compared to continuous improvement services. However, IE returns higher client impacts.
- IE creates more strategic-level client discussions.

- IE creates more client leads.
- IEMS can have broad appeal to many organizations, such as State governments, local governments, and 501c3 organizations. IEMS is not unique to manufacturing.

Interesting Projects and Opportunities for VMEC

- VMEC is working with the 12 Vermont Regional Development Corporations.
- VMEC is working with MEP's NIM to develop business opportunities.
- VMEC is working on the IBM Centennial Celebration Grant on Smart Grid, which funds innovative projects in areas such as energy efficiency and IE to help build a smarter planet.
- VMEC is speaking at the Northeastern Economic Development Association Annual Conference.

Many of these opportunities are directly related to our commitment to innovation.

VMEC's Journey with Innovation and Technology Acceleration from the Field Staff Perspective

Speaker: Patricia Giavara, Associate Director, Vermont Manufacturing Extension Center

Introduction

Ms. Giavara, the Associate Director of VMEC, is a chemical engineer by education, has worked at General Electric and Corning, has been involved with manufacturing for 20 years, and has been with VMEC for 9 years.

Innovation Engineering

- Innovation is the most profitable business activity, and IE is critical to be competitive and profitable.
- IEMS provides a process and systematic approach to innovation. The four phases include: define, discovery, develop, and delivery.

Innovation Engineering Challenges and Opportunities

- Many clients are not open to change. It takes time to explain the benefit and have them begin thinking about innovation as a continual process.
- There is a large volume of IE knowledge/tools to allow for all types of learning.
- The resources of NIM are hugely untapped. VMEC is exploring how to better leverage the content and opportunities.

Client Experience: From Desire to Strategy to Action, One Company's Journey

Speaker: Joe Perrotto, President/Chief Executive Officer, Country Home Products

Introduction to Country Home Products (CHP)

- Founded 1986, CHP has 250 employees with \$70 million in revenue in 2011,
- 80 percent of CHP's revenue comes from DR Power Equipment, and
- 20 percent of CHP's revenue comes from Neuton Battery-Powered Equipment.

Background on CHP

- In 2008, CHP had \$30 million in debt (from acquisitions),
- Housing starts were way down, the lowest in 50 years, and homeowners are the company's primary customer
- CHP was prepared to move its manufacturing process to China.
- In 2009, CHP restructured the company and its debt. CHP worked to Articulated Strategy, Mapped Our Desires, and Made Them Concrete

Innovation at CHP

- CHP sent 35 employees to IE training. The company focused on the number of new products in the pipeline on increasing the speed and reducing the cost of moving new products to the market.
- CHP experienced some challenges -- Change is change and it can be difficult. Old habits die hard, and this requires a new way of thinking.

Results

- Through the innovation processes, the company increased 2010 earnings by 80 percent.
- Increased net product value of new-product pipeline by \$25 million, an increase of 100% from 2008.
- CHP expects to launch two new products in 2011 and three new products in 2012.

Discussion with Congressional Staff

A number of Congressional staff were in attendance at the MEP Advisory Board meeting. Board Chair, Mark Rice invited them to share their thoughts on the MEP program and U.S. manufacturing.

***Congressional Staff: Jamie Brown, Professional Staff, Committee on Science, Space, and Technology, U.S. House of Representatives
Hilary Cain, Staff Director, Committee on Science, Space, and Technology, U.S. House of Representatives
Marcy Gallo, Professional Staff, Committee on Science, Space, and Technology, U.S. House of Representatives***

Comments by Congressional Staff

- Agency budgets are not likely to go up any time soon. In general, the U.S. needs to do more with fewer funds.

- There is a strong desire to reinvigorate U.S. manufacturing. Job creation is very important. Congress is looking to see what MEP can do to support this.
- There is strong support for the MEP program in Congress.
- MEP Centers need to continually demonstrate their value to their Congressional members.
- MEP needs to educate new Congressional members who are not familiar with MEP and the range of services and work to support the industry.

Discussion

- Congress would like to hear from the Advisory Board about the direction of the program and successes. Client stories are always helpful to understand the impact and value of the program.
- MEP is a grassroots program, involving a public-private partnership. MEP should attract more general attention. If this model works, other programs could follow MEP.
- In general, the Committee on Science, Space, and Technology supports manufacturing programs at the Department of Commerce. The number of jobs created or saved by a program is the most important question.
- MEP needs to be clear on terms and acronyms when highlighting program initiatives and client successes. And, most importantly, MEP needs to show how its programs create or save jobs.

Board Discussion and Recommendations

Mediator: Mark Rice, Chairperson, MEP Advisory Board

- Board agrees that a National manufacturing framework is needed. Such a framework could be used to coordinate service delivery between agencies, to share emerging best practices, and to stretch available funding.
 - While current leaders of the MEP program are focused on the bottoms-up approach to make this happen, there is a need for Congress to address the top-down portion.
- NIST has developed a successful public-private partnership (PPP) in the MEP system. There is growing interest among other agencies in linking to this model. There appears to be a growing role under this PPP for MEP Centers to act as market makers (larger projects and financial, business-continuity, or disaster-recovery planning).
- The Advisory Board/MEP needs to demonstrate to stakeholders how critical MEP is to SMEs. Correspondence should include results from three workforce-development studies that will be released soon:
 - NAM's Biannual Study,
 - The Council on Competitiveness Workforce Report, and
 - NIST's Advance Manufacturing Report.Since the reports have not been released, this recommendation should be revisited at the May 2012 MEP Advisory Board Meeting.
- MEP needs to address the leadership gap in U.S. manufacturing. There is no training for manufacturing executives. There is no manufacturing career track in high schools or colleges.
- The NIM has not yet reached critical mass. Additional work should go into defining the need and looking at various outreach options, such as partnering with Google or Thomas.net. The NIM represents a three-sided paradigm: manufacturing capabilities, available technology, and buying options.

Adjournment

Speaker: Mark Rice, Chairperson, MEP Advisory Board

Mr. Rice announced that this is the last MEP Advisory Board Meeting where he will serve as the Chair. Mr. Rice emphasized that the Board is in a unique position to articulate issues and solutions and encourages the next Chair to press the case for the National MEP System.

Advisory Board members, participants, and observers were thanked for attending the meeting. The next MEP Advisory Board meeting will be held on May 6, 2012, in Orlando, Florida.